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(54) Title: PHOSPHORUS-CONTAINING CATALYST COMPOSITION AND HYDROFORMYLATION PROCESS USING THE SAME

(57) Abstract: Provided are a catalyst composition comprising a bidentate ligand, a monodentate ligand, and a transition metal catalyst and a process of hydroformylation of olefins, comprising reacting the olefin compound with gas mixture of hydrogen and carbon monoxide with stirring at an elevated pressure and temperature in the presence of the catalyst composition to produce aldehyde. The present catalytic compositions show high catalytic activity, high normal-to-iso aldehyde selectivity, and high stability.